

STORMWATER FINANCING STUDY
MEETING NO. 3 JULY 4, 2012-08-23

The primary purpose of the meeting was to share information on the existing funding mechanisms and revenue sources that currently support stormwater management throughout the City of Mississauga.

The meeting covered details on the following,

1. The City of Mississauga Stormwater Programme is based on several service levels. The meeting outlined
 - a. the current programme summary
 - b. future programme considerations
 - c. stormwater assets and necessary reinvestment
2. Current funding mechanisms for The City of Mississauga Stormwater Programme include,
 - a. Property tax
 - b. Development charges

The funding of the stormwater infrastructure is both ongoing from numerous Governmental and Agency levels and is about to experience a dramatic shortfall. The present funding sources will no longer be able to sustain current operational and maintenance expenses nor cover the expenses for much needed new infrastructure over the next forty to fifty years. The following is a summary of services presently provided by the City of Mississauga.

1. A - City Stormwater Responsibilities and Services

- a. The City is responsible for managing all aspects of stormwater within its jurisdiction (e.g. planning, design, construction, operations and maintenance)
- b. including facilities located within the public right-of-way limits or easements
- c. excluding facilities located on private property, within provincial road rights-of-way, or that fall under the jurisdiction of another government authority
- d. ownership and operation of facilities constructed by developers is typically included as part of the formal assumption process of a subdivision (following initial warranty period and final inspection)
- e. The City is not responsible for potable water, wastewater and solid waste management – these services are under the Region of Peel
- f. The City's current stormwater programmes involves all City departments
- g. The City's stormwater management assets have an estimated replacement value of \$1.7 billion

2. A - Provincial and Federal Legislation

- a. Ontario Water Resources Act (OWRA) prohibits activities that introduce pollutants into natural water bodies
- b. Provincial Water Quality Objectives serve as chemical and physical indicators for Ontario's surface water and groundwater
- c. Ontario Water Opportunities Act, 2010 will conserve and sustain water resources for present and future generations
- d. Ontario Clean Water Act, 2006 ensures communities are able to protect their municipal potable water supplies through developing collaborative, locally driven, science-based protection plans
- e. Ontario Brownfields Act, 2004 addresses the clean-up process for proposed redevelopment in brownfields, which are abandoned, idle or underutilized commercial or industrial properties where past activities have caused known or suspected environmental contamination

3. A - Agency Responsibilities – Conservation Authorities

- a. Credit Valley Conservation Authority (CVC); Toronto and Region Conservation Authority (TRCA); and Conservation Halton (CH)
- b. Established under the CONSERVATION AUTHORITIES ACT:
- c. Protection and management of wetlands
- d. Regulation of development within floodplains
- e. Coordinate the preparation of environmental plans on a watershed basis
- f. Comment on development activities affecting water quantity and quality, fish habitat (on behalf of DFO), and fisheries management plans (with MNR)
- g. Special flood protection and erosion control projects
- h. Various water quality, water supply, groundwater programmes and watershed/sub-watershed planning studies that dictate design criteria and maintenance requirements for stormwater facilities

4. A - Agency Responsibilities – Federal

- a. Environment Canada (EC); Department of Fisheries and Oceans (DFO); and Infrastructure Canada (INFC)
- b. EC has several networks and tools to monitor and predict climate change
- c. Although there is much federal legislation related to stormwater, the regulatory role is left to individual PROVINCES
- d. The federal government of Canada is also a partner in municipal, Provincial and federal infrastructure funding partnerships

5. A - Agency Responsibilities – Provincial

Ministry of the Environment (MOE)

- a. Develops and implements environmental legislation, regulations, standards, policies, guidelines and programmes
- b. Research, monitoring, inspection, investigations and enforcement activities are integral to achieving Ontario's environmental goals
- c. Primary permitting and oversight role for municipal stormwater management, through a number of acts and regulations (e.g., OWRA)

Ministry of Municipal Affairs and Housing (MMAH)

- d. Provincial land use planning policies and other matters under Planning Act
- e. Stormwater management is critical to the subdivisions planning process
- f. Oversight responsibilities for municipal authority and activities, as well as the Ontario Building Code
- g. In specific areas there may be additional planning requirements (e.g., Greenbelt Plan, Oak Ridges Moraine Conservation Plan)

Ministry of Natural Resources (MNR)

- h. Planning role primarily focused on emergency management programmes (identified in Order in Council 1492/1995 as the provincial lead for flooding)
- i. Approval of Special Policy Areas (in association with MMAH) to regulate historic towns and residential areas that lie inside floodplain areas and act to restrict further intensification of such areas
- j. Technical guidance for fisheries and natural channel systems

Ministry of Infrastructure (MOI)

- k. As part of the Places to Grow Act, Ontario's Growth Plan identifies a number of policies related to stormwater management (e.g., municipalities are encouraged to implement and support innovative stormwater management actions as part of redevelopment and intensification)
- l. Develops general infrastructure policy and advises on the government's investment priorities in public infrastructure, which includes stormwater

Ministry of Transportation (MTO)

- m. As an owner/developer, MTO plans, builds and maintains highways including stormwater management facilities
- n. As a regulator, MTO develops design standards, reviews/approves design reports and issues permits
- o. Key statutes pertaining to stormwater include the Public Transportation and Highway Improvement Act which manages highway drainage and provides authority for construction, alteration and maintenance

Ministry of Agriculture Food and Rural Affairs (OMAFRA)

- p. Stormwater responsibility under the Ontario Drainage Act, which directs the planning and maintenance of drainage works

Ministry of Community Safety and Correctional Services (MCSCS)

- q. Development of Emergency Response Plan and Business Continuity Plan, which includes a stormwater flood response

6. B – Development of a Sustainable Stormwater Programme

In order to achieve a sustainable level of service the City of Mississauga needs to budget for increasing maintenance repairs on existing infrastructure rapidly approaching its maximum operational life expectancy and for projected new, expanded services, over the next fifty years. Some of these areas include,

1. Increasing Capital Needs – watercourse erosion/rehabilitation, SWM pond dredging, flood protection works, culvert improvements, low impact development practices
2. Increasing Operating Needs – infrastructure inspections and maintenance, education and outreach, by-law enforcement, rain gauge network, naturalization and tree planting
3. Other pressures – infrastructure renewal, climate change adaptations, new/increasing regulations

City of Mississauga Stormwater Infrastructure Assets

Mississauga Stormwater Inventory	Est. Quantity	Unit of Measure	Est. Useful Life (years)	Avg. Age (Years)	Closing Net Book (2011)	Total Replacement (2011)
Storm Sewers	2,000	km length	100	29	\$534 Million	\$1.6 Billion
Catch Basins	48,000	Number				
Stormwater Manholes	28,000	Number				
Outlets to Receiving waters	1,000	Number				
Diversion structures (trunk sewers)	100	km length				
Ditches/stormwater Swales in urban areas	250	km length				
SWM facilities (hard and soft components)	57	Number	25 - 50	19	\$26 Million	\$76 Million
Watercourses, streams, rivers and creeks	200	km length	25	18	\$21 Million	\$58 Million
					\$581 Million	\$1.734 Billion

City of Mississauga Stormwater Management Programme Tax Funded Expenditures – Current Service Level – 2012

Activity	Cost (\$)	Description
Operation and Maintenance		
Engineering & Works	5,260,000	Day – day operating costs of Stormwater Management Programme
Support Services	1,010,000	Support staff required for the planning of future stormwater infrastructure needs
Community Services	350,000	Department project costs associated with stormwater-related projects
Subtotal	6,620,000	
Capital Improvement Projects		
Erosion Control	4,470,000	Watercourse erosion protection and rehab.
Flood relief	1,260,000	Culvert capacity improvements and flood protection berms
Storm Sewer	350,000	Rehabilitation and replacement of existing storm sewers
Studies	1,000,000	Stormwater related studies
Stormwater management facilities	280,000	Pond dredging/rehabilitation, quantity control facilities and low impact development practices
Channellization	470,000	Watercourse conveyance improvements
Community Services	200,000	Departmental project costs associated with stormwater related programmes
Subtotal	8,030,000	
TOTAL	14,650,000	